

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A telecommunications system for providing a facility for communicating internet packets to and/or from a mobile user equipment, payload data of the internet packets comprising a plurality of different types of data, the system comprising a packet radio network which includes a gateway support node, a serving support node and a radio network controller,

the gateway support node for providing an interface for communicating the internet packets between the mobile user equipment and the packet data network,

the serving support node for controlling communication of the internet packets between the gateway support node and the mobile user equipment using a radio network controller, the radio network controller for providing radio access bearers for communicating the internet packets to and from the mobile user equipment, wherein

the gateway support node in combination with the serving support node for responding to context application request data from the mobile user equipment to establish a virtual communications channel between the gateway support node and the mobile user equipment via the serving support node, the context application request data representing a request for the virtual communications channel for communicating the internet packets containing the different types of data, the context application request data specifying a main set of quality of service parameters and including at least one other data field representing a request for a different set of quality of service parameters, each set of quality of service parameters being provided for one of the different types of data in the internet packet, the virtual communications channel including a bearer for communicating the internet packets between the gateway support node and the serving support node and a plurality of radio access bearers, each of the radio access bearers being provided for one of the different types of payload data of the internet packets, each radio access bearer providing one of the main and other set of quality of service parameters for the different data types specified by the context application request data, and

the serving support node, in response to the context application request data from the mobile user equipment, parses an internet packet addressed to the mobile user equipment comprising an internet protocol header and a plurality of different types of data, to generate a payload data types indicator in which the payload data type indicator is a representation of

payload types information describing the different types of payload data in the internet packet addressed to the mobile user equipment and append the payload data types indicator to the internet packet addressed to the mobile user equipment, and

to send the internet packet addressed to the mobile user equipment with the appended payload data types indicator to the radio network controller via the virtual communications channel, and the radio network controller identifies the payload data types indicator, and in accordance with the payload data types indicator, to provide each of the different types of payload data of the internet packet addressed to the mobile user equipment to a corresponding radio bearer.

2. (previously presented) A telecommunications system as claimed in Claim 1, wherein the serving support node, in response to the virtual communications channel being established,

communicates radio access request data in accordance with a radio access network application part protocol to the radio network controller, and the radio network controller, in combination with a radio resource control layer, establishes using a medium access control layer one of the radio access bearers for each of the plurality of quality of service parameters specified for the different data type.

3. (previously presented) A telecommunications system as claimed in Claim 2, wherein the radio resource control layer

establishes the radio access bearers as a main radio access bearer in accordance with the main quality of service parameters in the medium access control layer, and

establishes the radio access bearer for each of the different data types as a sub flow within the main radio access bearer in the medium access control layer.

4. (previously presented) A telecommunications system as claimed in Claim 1, wherein the payload data of the internet packets includes a data frame formed from an adaptive multi-rate speech codec, the data frame providing the plurality of the different types of data.

5. (previously presented) A telecommunications system as claimed in Claim 1, wherein the mobile user equipment communicates the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.

6. (previously presented) A method of communicating internet packet data to and/or from a mobile user equipment via a packet radio network, payload data of each internet packet comprising a plurality of different types of data, the packet radio network including a gateway support node, a serving support node and a radio network controller the method comprising

using the serving support node of the packet radio network to control communication of the internet packets between the gateway support node and the mobile user equipment using the radio network controller, the radio network controller for providing radio access bearers for communicating the internet packets to and from the mobile user equipment,

communicating context application request data to the gateway support node, the context request data representing a request for a virtual communications channel for communicating the internet packets containing the different types of data via the packet radio network, the context application request data including a data field specifying a main set of quality of service parameters and including at least one other data field representing a request for a different set of quality of service parameters, each of the sets of quality of service parameters being provided for one of the different types of data in the internet packets, and

establishing the virtual communications channel between the gateway support node and the mobile user equipment in response to the context application request data for communicating the internet packet data,

including establishing a plurality of radio access bearers in accordance with each of the sets of the quality of service parameters, each radio access bearer being provided for communicating one of the plurality of different types of payload data of internet data packets,

using the serving support node, in response to the context application request data from the mobile user equipment to parse an internet packet addressed to the mobile user equipment comprising an internet protocol header and a plurality of different types of data, to generate a payload data types indicator in which the payload data types indicator is a representation of payload types information describing the different types of payload data in the internet packet addressed to the mobile user equipment and append the payload data types indicator to the internet packet addressed to the mobile user equipment, and

sending the internet packet addressed to the mobile user equipment with the appended payload data types indicator to the radio network controller via the virtual communications channel, and the radio network controller identifies the payload data types indicator, and in accordance with the payload data types indicator, to provide each of the different types of

payload data of the internet packet addressed to the mobile user equipment to a corresponding radio bearer.

7. (original) A method as claimed in Claim 6, the establishing the virtual channel comprises communicating radio access request data in accordance with a radio access network application part protocol to the radio network controller, and
using a medium access control layer of the radio network controller to establish the radio access bearer for each of the plurality of quality of service parameters for one of the different data types.

8. (original) A method as claimed in Claim 7, wherein the using the medium access control layer comprises
establishing a main radio access bearer in accordance with the main quality of service parameters in the medium access control layer, and
establishing the radio access bearer for each of the different data types as a sub-flow within the main radio access bearer in the medium access control layer.

9. (previously presented) A method as claimed in Claim 6, wherein the payload data of the internet packets includes a data frame formed from an adaptive multi-rate speech coded, the data frame providing the plurality of the different data types of data.

10. (previously presented) A method as claimed in Claim 6, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.

11. (canceled)

12. (canceled)

13. (previously presented) A radio network controller of a packet radio network for communicating internet packets between a serving support node and a mobile communications user equipment in a telecommunications system according to claim 1, payload data of each of the

internet packets comprising a plurality of different types of data, the radio network controller comprising

a radio resource layer for controlling radio resources for communicating the internet packets,

a radio link control layer for controlling a medium access control layer to provide radio access bearers for communicating the internet packets via a radio access interface to the mobile communications user equipment, the radio link control layer providing the radio resources controlled by the radio resource layer, wherein the radio resource layer is responsive to a radio access request data using a radio access network application protocol layer to control the radio link control layer to establish using the medium access control layer a main radio access bearer for one of the different types of data in accordance with a main set of quality of service parameters, and

to establish a radio access bearer for each of the different data types as a sub-flow within the main radio access bearer in the medium access control layer.

14. (previously presented) A mobile user equipment for communicating internet packets, payload data of each of the internet packets data comprising a plurality of different types of data, the mobile user equipment for communicating context application request data to a serving support node of a packet radio network, the context request data representing a request for a virtual communications channel for communicating the internet data packets containing the different types of data, where the request data includes a data field specifying a main set of quality of service parameters and at least one other data field representing a request for at least one other radio access bearer providing a different quality of service parameters, each of the radio access bearers being provided for one of the different types of data in the payload of the internet packets, and wherein

the serving support node, in response to the context application request data from the mobile user equipment,

parses an internet packet addressed to the mobile user equipment comprising an internet protocol header and a plurality of different types of data, to generate a payload data types indicator in which the payload data types indicator is a representation of payload types information describing the different types of payload data in the internet packet addressed to the mobile user equipment and append the payload data types indicator to the internet packet addressed to the mobile user equipment, and

to send the internet packet addressed to the mobile user equipment with the appended payload data types indicator to the radio network controller, and the radio network controller identifies the payload data types indicator, and in accordance with the payload data types indicator, to provide each of the different types of payload data of the internet packet addressed to the mobile user equipment to a corresponding radio bearer.

15. (currently amended) A computer readable memory device on which a computer program to be executed by a data processor within a computer has been recorded; the computer forming part of a gateway support node of a packet radio network; the program method of providing a facility for communicating internet packets to and/or from a mobile user equipment, payload data of the internet packets comprising a plurality of different types of data, the system comprising a packet radio network which includes a gateway support node, a serving support node and a radio network controller, the method comprising the steps of:

communicating internet packets to and/or from [[a]] the mobile user equipment via [[a]] the packet radio network, the payload data of each of the internet packets comprising [[a]] the plurality of different types of data, the packet radio network including the gateway support node, [[a]] the serving support node and [[a]] the radio network controller,

controlling communication of the internet packets between the gateway support node and the mobile user equipment using the radio network controller, the radio network controller for providing radio access bearers for communicating the internet packets to and from the mobile user equipment,

receiving context application request data, the context application request data representing a request for a virtual communications channel for communicating the internet packets containing the different types of data between the gateway support node and the mobile user equipment, the context application request data including a data field specifying a main set of quality of service parameters and at least one other data field representing a request for a respective set of quality of service parameters, each of the sets of quality of service parameters being provided for one of the different types of data in the internet packets, and

establishing the virtual communications channel in response to the context application request data, including establishing a radio access bearer for each of the sets of quality of service parameters for communicating the different types of payload data in the internet packets,

using the serving support node, in response to the context application request data from the mobile user equipment to parse an internet packet addressed to the mobile user equipment

comprising an internet protocol header and a plurality of different types of data, to generate a payload data types indicator in which the payload data types indicator is a representation of payload types information describing the different types of payload data in the internet packet addressed to the mobile user equipment and append the payload data types indicator to the internet packet addressed to the mobile user equipment, and

 sending the internet packet addressed to the mobile user equipment with the appended payload data types indicator to the radio network controller, and the radio network controller identifies the payload data types indicator, and in accordance with the payload data types indicator, to provide each of the different types of payload data of the internet packet addressed to the mobile user equipment to a corresponding radio bearer.

16. (canceled)

17. (previously presented) An apparatus for communicating internet packet data to and/or from a mobile user equipment via a gateway support node, the internet packet data carrying a plurality of different types of data, the apparatus comprising

 means for communicating the data packets between to the mobile user equipment and the gateway support node,

 means for controlling communication of the data packets between the mobile user equipment using a radio network controller, the radio network controller for providing radio access bearers for communicating the internet data packets to and from the mobile user equipment,

 means for communicating context application request data to the gateway support node, the context application request data representing a request for a virtual communications channel for communicating the data packets containing the different types of data, the context application request data including a data field specifying a main set of quality of service parameters and at least one other data field representing a request for a different set of quality of service parameters, each of the sets of quality of service parameters being provided for one of the different types of data in the data packet, and

 means for establishing the virtual communications channel between the gateway support node and the mobile user equipment in response to the context application request data,

including establishing a radio access bearer in accordance with each of the sets of quality of service parameters for communicating the different types of payload data in the internet packets,

means for, in response to the context application request data from the mobile user equipment, parsing an internet packet addressed to the mobile user equipment comprising an internet protocol header and a plurality of different types of data, and for generating a payload data types indicator in which the payload data types indicator is a representation of payload types information describing the different types of payload data in the internet packet addressed to the mobile user equipment and appending the payload data types indicator to the internet packet addressed to the mobile user equipment, and

means for sending the internet packet addressed to the mobile user equipment with the appended payload data types indicator to the radio network controller, the radio network controller identifies the payload data types indicator, and in accordance with the payload data types indicator, to provide each of the different types of payload data of the internet packet addressed to the mobile user equipment to a corresponding radio bearer.

18. (canceled)

19. (canceled)

20. (previously presented) A telecommunications system as claimed in Claim 2, wherein the payload data of the internet packets includes a data frame formed from an adaptive multi-rate speech codec, the data frame providing the plurality of the different types of data.

21. (previously presented) A telecommunications system as claimed in Claim 3, wherein the payload data of the internet packets includes a data frame formed from an adaptive multi-rate speech codec, the data frame providing the plurality of the different types of data.

22. (previously presented) A telecommunications system as claimed in Claim 2, wherein the mobile user equipment communicates the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.

23. (previously presented) A telecommunications system as claimed in Claim 3, wherein the mobile user equipment communicates the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.
24. (previously presented) A telecommunications system as claimed in Claim 4, wherein the mobile user equipment communicates the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.
25. (previously presented) A telecommunications system as claimed in Claim 20, wherein the mobile user equipment communicates the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.
26. (previously presented) A telecommunications system as claimed in Claim 21, wherein the mobile user equipment communicates the context application request data to the gateway support node in accordance with a Packet Data Protocol context activation procedure.
27. (previously presented) A method as claimed in Claim 7, wherein the payload data of the internet packets includes a data frame formed from an adaptive multi-rate speech coded, the data frame providing the plurality of the different data types of data.
28. (previously presented) A method as claimed in Claim 8, wherein the payload data of the internet packets includes a data frame formed from an adaptive multi-rate speech coded, the data frame providing the plurality of the different data types of data.
29. (previously presented) A method as claimed in Claim 7, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.
30. (previously presented) A method as claimed in Claim 8, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.

31. (previously presented) A method as claimed in Claim 9, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.
32. (previously presented) A method as claimed in Claim 27, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.
33. (previously presented) A method as claimed in Claim 28, wherein the context application request data is communicated in accordance with a Packet Data Protocol context activation procedure.
34. (previously presented) A telecommunications system for providing a facility for communicating internet packets to and/or from a mobile user equipment payload data of the internet packets comprising a plurality of different types of data, the system comprising a packet radio network which includes a gateway support node, a serving support node and a radio network controller,
the gateway support node for providing an interface for communicating the internet packets between the user equipment and the packet data network,
the serving support node for controlling communication of the internet packets between the gateway support node and the mobile user equipment using a radio network controller, the radio network controller for providing radio access bearers for communicating the internet packets to and from the user equipment, wherein
the gateway support node in combination with the serving support node, in response to context application request data from the mobile user equipment to establish a virtual communications channel between the gateway support node and the mobile user equipment via the serving support node, the context application request data representing a request for the virtual communications channel for communicating the internet packets containing the different types of data, the context application request data specifying a main set of quality of service parameters and including at least one other data field representing a request for a different set of quality of service parameters, each set of quality of service parameters being provided for one of the different types of data in the internet packet, the virtual communications channel including a bearer for communicating the internet packets between the gateway support node and the serving

support node and a plurality of radio access bearers, each of the radio access bearers being provided for one of the different types of payload data of the internet packets, each radio access bearer providing one of the main and other set of quality of service parameters for the different data types specified by the context application request data, wherein

the serving support node comprises

an internet protocol communications layer and

a user data tunnelling layer for providing the virtual communications channel for communicating user data between the mobile user equipment and the gateway support node, wherein the serving support node, in combination with the gateway support node, responds to context application request data from the mobile user equipment

to establish the virtual communications channel between the gateway support node and the mobile user equipment via the serving support node for communicating the internet packets, and

in response to the context application request data including a data field representing main set of quality of service parameters and at least one other data field representing a request for a different set of quality of service parameters, each set of quality of service parameters being required for one of the different types of data in the internet packets,

to establish a plurality of radio access bearers each in accordance with one of the sets of the quality of service parameters, each radio access bearer being provided for one of the different types of payload data of the internet packets.

35. (previously presented) A telecommunication system as claimed in Claim 34, wherein the serving support node further comprises

a radio access network application part protocol layer, wherein the serving support node in response to the virtual channel being established through the user data tunnelling layer,

communicates radio access request data using the radio access network application protocol layer to a radio network controller to establish using a medium access control layer of the radio network controller a radio access bearer for each of the different types of data in accordance with a respective set of quality of service parameters.